

# BEST AVAILABLE COPY

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



## RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/827,937

Source: OIPE

Date Processed by STIC: 4-23-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be downloaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>



OIE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001  
TIME: 13:34:35

Input Set : A:\seqlist-1488 1220003.txt  
Output Set: N:\CRF3\04232001\I827937.raw

5 <110> APPLICANT: Li, Yi  
8 Ruben, Steven M.  
13 <120> TITLE OF INVENTION: Human G-Protein Coupled Receptors  
19 <130> FILE REFERENCE: 1488.1220003  
C--> 25 <140> CURRENT APPLICATION NUMBER: US/09/827,937  
C--> 28 <141> CURRENT FILING DATE: 2001-04-09  
32 <150> PRIOP. APPLICATION NUMBER: 08/852,824  
35 <151> PRIOR FILING DATE: 1997-05-07  
40 <160> NUMBER OF SEQ ID NOS: 18  
46 <170> SOFTWARE: PatentIn Ver. 2.0  
52 <210> SEQ ID NO: 1  
55 <211> LENGTH: 2247  
58 <212> TYPE: DNA  
61 <213> ORGANISM: genomic  
67 <220> FEATURE:  
70 <221> NAME/KEY: CDS  
73 <222> LOCATION: (226)..(1251)  
79 <400> SEQUENCE: 1  
82 gcacgaggaa cagaacactt tctcatgtcc agggcagat tacaagagca ctcaagactt 60  
88 tactgacgaa aactcaggaa atcctctata acaaagaggt ttggcaacta aactaagaca 120  
94 ttaaaaaggaa aataccagat gccactctgc aggctgoaat aactactact tactggatac 180  
100 attcaaacc ccc tccagaatca acagttatca ggttaaccaac aagaa'atg caa gcc gtc 237  
103 Met Gln Ala Val  
106 1  
112 gag aat ctc acc tct gcg cct ggg aac acc agt ctg tgc acc aga gac 285  
115 Asp Asn Leu Thr Ser Ala Pro Gly Asn Thr Ser Leu Cys Thr Arg Asp  
118 5 10 15 20  
124 tac aaa atc acc cag gtc ctc ttc cca ctg ctc tac act gtc ctg ttt  
127 Tyr Lys Ile Thr Gln Val Leu Phe Pro Leu Leu Tyr Thr Val Leu Phe  
130 25 30 35  
136 ttt gtt gga ctt atc aca aat ggc ctg gcg atg agg att ttc ttt caa 333  
139 Phe Val Gly Ile Thr Asn Gly Leu Ala Met Arg Ile Phe Phe Gln  
142 40 45 50  
148 atc cgg agt aaa tca aac ttt att att ttt ctt aag aac aca gtc att 381  
151 Ile Arg Ser Lys Ser Asn Phe Ile Ile Phe Leu Lys Asn Thr Val Ile  
154 55 60 65  
160 tct gat ctt ctc atg att ctg act ttt cca ttc aaa att ctt agt gat 429  
163 Ser Asp Leu Leu Met Ile Leu Thr Phe Pro Phe Lys Ile Leu Ser Asp  
166 70 75 80  
172 gcc aaa ctg gga aca gga cca ctg aga act ttt gtg tgt caa gtt acc 477  
175 Ala Lys Leu Gly Thr Gly Pro Leu Arg Thr Phe Val Cys Gln Val Thr  
178 85 90 95 100  
184 tcc gtc ata ttt tat ttc aca atg tat atc agt att tca ttc ctg gga  
187 Ser Val Ile Phe Tyr Phe Thr Met Tyr Ile Ser Ile Ser Phe Leu Gly  
190 105 110 115  
196 ctg ata act atc gat cgc tac cag aag acc acc agg cca ttt aaa aca  
199 Leu Ile Thr Ile Asp Arg Tyr Gln Lys Thr Thr Arg Pro Phe Lys Thr

Does Not Comply  
Corrected Diskette Needed

Valid responses for <213>:

1- Genus species of organism

2- Unknown

3- Artificial sequence.

Unknown and  
artificial sequences  
must include <220>,  
<223> features to  
explain the source  
of the genetic  
material in the  
sequence.

\*Note: please  
correct subsequent  
sequences in the  
listing which contain  
this error.

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001  
TIME: 13:34:35

Input Set : A:\seqlist-1488 1220003.txt  
Output Set: N:\CRF3\04232001\I827937.raw

202	120	125	130	
208	tcc aac ccc aaa aat ctc ttg ggg gct aag att ctc tct gtt gtc atc			669
211	Ser Asn Pro Lys Asn Leu Leu Gly Ala Lys Ile Leu Ser Val Val Ile			
214	135	140	145	
220	tgg gca ttc atg ttc tta ctc tct ttg cct aac atg att ctg acc aac			717
223	Trp Ala Phe Met Phe Leu Leu Ser Leu Pro Asn Met Ile Leu Thr Asn			
226	150	155	160	
232	agg cag ccg aga gac aag aat gtg aag aaa tgc tct ttc ctt aaa tca			765
235	Arg Gln Pro Arg Asp Lys Asn Val Lys Lys Cys Ser Phe Leu Lys Ser			
238	165	170	175	180
244	gag ttc ggt cta gtc tgg cat gaa ata gta aat tac atc tgt caa gtc			813
247	Glu Phe Gly Leu Val Trp His Glu Ile Val Asn Tyr Ile Cys Gln Val			
250	185	190	195	
256	att ttc tgg att aat ttc tta att gtt att gta tgt tat aca ctc att			861
259	Ile Phe Trp Ile Asn Phe Leu Ile Val Ile Val Cys Tyr Thr Leu Ile			
262	200	205	210	
268	aca aaa gaa ctg tac cgg tca tac gta aga acg agg ggt gta ggt aaa			909
271	Thr Lys Glu Leu Tyr Arg Ser Tyr Val Arg Thr Arg Gly Val Gly Lys			
274	215	220	225	
280	gtc ccc agg aaa aag gtg aac gtc aaa gtt ttc att atc att gct gta			957
283	Val Pro Arg Lys Lys Val Asn Val Lys Val Phe Ile Ile Ala Val			
286	230	235	240	
292	ttc ttt att tgt ttt gtt cct ttc cat ttt gcc cga att cct tac acc			1005
295	Phe Phe Ile Cys Phe Val Pro Phe His Phe Ala Arg Ile Pro Tyr Thr			
298	245	250	255	260
304	ctg agc caa acc cgg gat gtc ttt gac tgc act gct gaa aat act ctg			1053
307	Leu Ser Gln Thr Arg Asp Val Phe Asp Cys Thr Ala Glu Asn Thr Leu			
310	265	270	275	
316	ttc tat gtg aas gag agc act ctg tgg tta act tcc tta aat gca tgc			1101
319	Phe Tyr Val Lys Glu Ser Thr Leu Trp Leu Thr Ser Leu Asn Ala Cys			
322	280	285	290	
328	ctg gat ccg ttc atc tat ttt ttc ctt tgc aag tcc ttc aga aat tcc			1149
331	Leu Asp Pro Phe Ile Tyr Phe Phe Leu Cys Lys Ser Phe Arg Asn Ser			
334	295	300	305	
340	ttg ata agt atg ctg aag tgc ccc aat tct gca aca tct ctg tcc cag			1197
343	Leu Ile Ser Met Leu Lys Cys Pro Asn Ser Ala Thr Ser Leu Ser Gln			
346	310	315	320	
352	gac aat agg aaa aaa gaa cag gat ggt ggt gac cca aat gaa gag act			1245
355	Asp Asn Arg Lys Lys Glu Gln Asp Gly Gly Asp Pro Asn Glu Glu Thr			
358	325	330	335	340
364	cca atg taaaacaaatt aactaaggaa atatttcaat ctctttgtgt tcagaactcg			1301
367	Pro Met			
373	ttaaagcaaa gcgctaagta aaaatattaa ctgacgaaaga agcaactaag ttaataataa			1361
379	tgactctaaa gaaacagaag attacaaaaag caattttcat ttaccttcc agtatgaaaa			1421
385	gctatcttaa aatatagaaa actaatctaa actgttagctg tattagcagc aaaacaaacg			1481
391	acatccatt gtcatgctgc atgaaaaact acacagaatt catgtttgg cagagtgg			1541
397	gcaaaaatgag taatcatata atatttactg taattttaa aatacattat cgttcacaat			1601
403	tttatttttt cataatcaac taaggaagaa cgatcaattg gatataatct tcttaccaaa			1661
409	aatgatagtt aaaatgtata tatatcctag tcccctaacc aaatcctgac ctattggat			1721

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001  
TIME: 13:34:35

Input Set : A:\seqlist-1488 1220003.txt  
Output Set: N:\CRF3\04232001\I827937.raw

415 acttataaaa atttaagtaa gtgggataca caaagaataa taactattaa ctttcatta 1781  
 421 ttagccaaa acctaaggga tttaaactaa ttgaaactgt attgatttg acttaatttt 1841  
 427 ttatgttat tttagaagata aagatthaag aagacctta caataaagag aagaaatatc 1901  
 433 gaagtcatta aaataaggag acttacttt atgacattct aatactaaaa aatatagaaa 1961  
 439 tatttcotta attctagaga aactagttt actaatttt tacaacttca ataataccat 2021  
 445 cactgacact tacctttatt aattagctc tagaaaaatag ctgctaatta ggtaatgaa 2081  
 451 cattttacct tagtggaaaaaa aaattaatta aatatgatta caaagtgcag cagcataact 2141  
 457 actgagagga aagtgattga tctgtttgtt attacttgtt tgtattgggtg tgtataaaaat 2201  
 463 acaaatttac attaaaactct aaatcattaa aaaaaaaaaa aaaaaa 2247  
 472 <210> SEQ ID NO: 2  
 475 <211> LENGTH: 342  
 478 <212> TYPE: PRT  
 481 <213> ORGANISM genomic → See p. 1  
 487 <400> SEQUENCE:  
 490 Met Gln Ala Val Asp Asn Leu Thr Ser Ala Pro Gly Asn Thr Ser Leu  
 493 1 5 10 15  
 499 Cys Thr Arg Asp Tyr Lys Ile Thr Gln Val Leu Phe Pro Leu Leu Tyr  
 502 20 25 30  
 508 Thr Val Leu Phe Phe Val Gly Leu Ile Thr Asn Gly Leu Ala Met Arg  
 511 35 40 45  
 517 Ile Phe Phe Gln Ile Arg Ser Lys Ser Asn Phe Ile Ile Phe Leu Lys  
 520 50 55 60  
 526 Asn Thr Val Ile Ser Asp Leu Leu Met Ile Leu Thr Phe Pro Phe Lys  
 529 65 70 75 80  
 535 Ile Leu Ser Asp Ala Lys Leu Gly Thr Gly Pro Leu Arg Thr Phe Val  
 538 85 90 95  
 544 Cys Gln Val Thr Ser Val Ile Phe Tyr Phe Thr Met Tyr Ile Ser Ile  
 547 100 105 110  
 553 Ser Phe Leu Gly Leu Ile Thr Ile Asp Arg Tyr Gln Lys Thr Thr Arg  
 556 115 120 125  
 562 Pro Phe Lys Thr Ser Asn Pro Lys Asn Leu Leu Gly Ala Lys Ile Leu  
 565 130 135 140  
 571 Ser Val Val Ile Trp Ala Phe Met Phe Leu Leu Ser Leu Pro Asn Met  
 574 145 150 155 160  
 580 Ile Leu Thr Asn Arg Gln Pro Arg Asp Lys Asn Val Lys Lys Cys Ser  
 583 165 170 175  
 589 Phe Leu Lys Ser Glu Phe Gly Leu Val Trp His Glu Ile Val Asn Tyr  
 592 180 185 190  
 598 Ile Cys Gln Val Ile Phe Trp Ile Asn Phe Leu Ile Val Ile Val Cys  
 601 195 200 205  
 607 Tyr Thr Leu Ile Thr Lys Glu Leu Tyr Arg Ser Tyr Val Arg Thr Arg  
 610 210 215 220  
 616 Gly Val Gly Lys Val Pro Arg Lys Lys Val Asn Val Lys Val Phe Ile  
 619 225 230 235 240  
 625 Ile Ile Ala Val Phe Phe Ile Cys Phe Val Pro Phe His Phe Ala Arg  
 628 245 250 255  
 634 Ile Pro Tyr Thr Leu Ser Gln Thr Arg Asp Val Phe Asp Cys Thr Ala  
 637 260 265 270  
 643 Glu Asn Thr Leu Phe Tyr Val Lys Glu Ser Thr Leu Trp Leu Thr Ser

**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001

TIME: 13:34:35

Input Set : A:\seqlist-1488 1220003.txt

Output Set: N:\CRF3\04232001\I827937.raw

646 275 280 285  
 652 Leu Asn Ala Cys Leu Asp Pro Phe Ile Tyr Phe Phe Leu Cys Lys Ser  
 655 290 295 300  
 661 Phe Arg Asn Ser Leu Ile Ser Met Leu Lys Cys Pro Asn Ser Ala Thr  
 664 305 310 315 320  
 670 Ser Leu Ser Gln Asp Asn Arg Lys Lys Glu Gln Asp Gly Gly Asp Pro  
 673 325 330 335  
 679 Asn Glu Glu Thr Pro Met  
 682 340  
 691 <210> SEQ ID NO: 3  
 694 <211> LENGTH: 1637  
 697 <212> TYPE: DNA  
 700 <213> ORGANISM: genomic → See p. 1  
 706 <220> FEATURE:  
 709 <221> NAME/KEY: CDS  
 712 <222> LOCATION: (50)..(1201)  
 718 <400> SEQUENCE: 3  
 721 ggcacgagcc caccctgcgt cggcctcaag tcagcccccg ggggaggccc atg aac gca  
 724 Met Asn Ala  
 727 1  
 733 acg ggg acc ccg gtg gcc ccc gag tcc tgc caa cag ctg gcg gcc ggc  
 736 Thr Gly Thr Pro Val Ala Pro Glu Ser Cys Gln Gln Leu Ala Ala Gly  
 739 5 10 15  
 745 ggg cac agc cgg ctc att gtt ctg cac tac aac cac tac tcg ggc cgg ctg  
 748 Gly His Ser Arg Leu Ile Val Leu His Tyr Asn His Ser Gly Arg Leu  
 751 20 25 30 35  
 757 gcc ggg cgc ggg ggg ccy gag gat ggc ggc ctg ggg gcc ctg cgg ggg  
 760 Ala Gly Arg Gly Pro Glu Asp Gly Gly Leu Gly Ala Leu Arg Gly  
 763 40 45 50  
 769 ctg tcg gtg gcc gcc agc tgc ctg gtg ctg ctg gag aac ttg ctg gtg  
 772 Leu Ser Val Ala Ala Ser Cys Leu Val Val Leu Glu Asn Leu Leu Val  
 775 55 60 65  
 781 ctg gcg gcc atc acc agc cac atg cgg tcg caa cgc tgg gtc tac tat  
 784 Leu Ala Ala Ile Thr Ser His Met Arg Ser Gln Arg Trp Val Tyr Tyr  
 787 70 75 80  
 793 tgc ctg gtg aac att acg atg agt gac ctg ctc acg ggc ggc gcc tac  
 796 Cys Leu Val Asn Ile Thr Met Ser Asp Leu Leu Thr Gly Ala Ala Tyr  
 799 85 90 95  
 805 ctg gcc aac gtg ctg ctg tcg ggg gcc cgc acc ttc cgt ctg gcg ccc  
 808 Leu Ala Asn Val Leu Leu Ser Gly Ala Arg Thr Phe Arg Leu Ala Pro  
 811 100 105 110 115  
 817 gcc cag tgg ttc cta cgg aag ggc ctg ctc ttc acc gcc ctg gcc gcc  
 820 Ala Gln Trp Phe Leu Arg Lys Gly Leu Leu Phe Thr Ala Leu Ala Ala  
 823 120 125 130  
 829 tcc acc ttc agc ctg ctc ttc act gca ggg ttg cgc ttt gcc acc atg  
 832 Ser Thr Phe Ser Leu Leu Phe Thr Ala Gly Leu Arg Phe Ala Thr Met  
 835 135 140 145  
 841 gtg cgg ccg gtg gcc gag agc ggg gcc acc aag acc agc cgc gtc tac  
 844 Val Arg Pro Val Ala Glu Ser Gly Ala Thr Lys Thr Ser Arg Val Tyr

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001  
TIME: 13:34:35

Input Set : A:\seqlist-1488 1220003.txt  
Output Set: N:\CRF3\04232001\I827937.raw

847	150	155	160	
853	ggc ttc atc ggc ctc tgc tgg ctg ctg gcc gcg ctg ctg ggg atg ctg			586
856	Gly Phe Ile Gly Leu Cys Trp Leu Leu Ala Ala Leu Leu Gly Met Leu			
859	165	170	175	
865	cct ttg ctg ggc tgg aac tgc ctg tgc gcc ttt gac cgc tgc tcc agc			634
868	Pro Leu Leu Gly Trp Asn Cys Leu Cys Ala Phe Asp Arg Cys Ser Ser			
871	180	185	190	195
877	ctt ctg ccc ctc tac tcc aag cgc tac atc ctc ttc tgc ctg gtg atc			682
880	Leu Leu Pro Leu Tyr Ser Lys Arg Tyr Ile Leu Phe Cys Leu Val Ile			
883	200	205	210	
889	ttc gcc ggc gtc ctg gcc acc atc atg ggc ctc tat ggg gcc atc ttc			730
892	Phe Ala Gly Val Leu Ala Thr Ile Met Gly Leu Tyr Gly Ala Ile Phe			
895	215	220	225	
901	cgc ctg gtg cag gcc agc ggg cag aag gcc cca cgc cca gcg gcc cgc			778
904	Arg Leu Val Gln Ala Ser Gly Gln Lys Ala Pro Arg Pro Ala Ala Arg			
907	230	235	240	
913	cgc aag gcc cgc cgc ctg ctg aag acg gtg ctg atg atc ctg ctg gcc			826
916	Arg Lys Ala Arg Arg Leu Leu Lys Thr Val Leu Met Ile Leu Leu Ala			
919	245	250	255	
925	ttc ttg gtg tgc tgg gga cca ctc ttc ggg ctg ctg ctg gcc gac gtc			874
928	Phe Leu Val Cys Trp Gly Pro Leu Phe Gly Leu Leu Ala Asp Val			
931	260	265	270	275
937	ttt ggc tcc aac ctc tgg gcc cag gag tac ctg cgg ggc atg gac tgg			922
940	Phe Gly Ser Asn Leu Trp Ala Gln Glu Tyr Leu Arg Gly Met Asp Trp			
943	280	285	290	
949	atc ctg gcc ctg gcc gtc ctc aac tcg gcg gtc aac ccc atc atc tac			970
952	Ile Leu Ala Leu Ala Val Leu Asn Ser Ala Val Asn Pro Ile Ile Tyr			
955	295	300	305	
961	tcc ttc cgc agc agg gag gtg tgc aga gcc gtg ctc agc ttc ctc tgc			1018
964	Ser Phe Arg Ser Arg Glu Val Cys Arg Ala Val Leu Ser Phe Leu Cys			
967	310	315	320	
973	tgc ggg tgt ctc cgg ctg ggc atg cga ggg ccc ggg gac tgc ctg gcc			1066
976	Cys Gly Cys Leu Arg Leu Gly Met Arg Gly Pro Gly Asp Cys Leu Ala			
979	325	330	335	
985	cggtgcc gtc gag gct cac tcc gga gct tcc acc acc gac agc tct ctg			1114
988	Arg Ala Val Glu Ala His Ser Gly Ala Ser Thr Thr Asp Ser Ser Leu			
991	340	345	350	355
997	agg cca agg gac agc ttt cgc ggc tcc cgc tcg ctc agc ttt cgg atg			1162
1000	Arg Pro Arg Asp Ser Phe Arg Gly Ser Arg Ser Leu Ser Phe Arg Met			
1003	360	365	370	
1009	cggtggccc tggatggtgc aaccaccggg tgcgtgccag gcaggccctc ctggggata			1211
1012	Arg Glu Pro Leu Ser Ser Ile Ser Ser Val Arg Ser Ile			
1015	375	380		
1021	gtcttcgtgt tggtggatggtgc aaccaccggg tgcgtgccag gcaggccctc ctggggata			1271
1027	ggaaacctgtg tgcacgtcaac ctcgcctgt atggggagca gggAACGGGA caggccccca			1331
1033	tggacttgcc cgggtggccctc tcggggcttc tgcgtccata tggacttgcc cattgcctat			1391
1039	ggctcacccct ggacaaggag gcaaccaccc cacccccccg taggagcaga gagcaccctg			1451
1045	gtgtggggc gagtgggttc cccacaaccc cgcttctgtg tgattctgg gaagtcccg			1511
1051	ccccctctctg ggcctcagta gggctcccaag gctgcaaggg gtggactgtg ggatgcata			1571

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/827,937

DATE: 04/23/2001  
TIME: 13:34:36

Input Set : A:\seqlist-1488 1220003.txt  
Output Set: N:\CRF3\04232001\I827937.raw

L:25 M:270 C: Current Application Number differs, Replaced Application Number  
L:28 M:271 C: Current Filing Date differs, Replaced Current Filing Date